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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,651	06/12/2001	Sung-Ho Choi	678-692 (P9828)	4236

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EXAMINER	
PEACHES, RANDY	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/879,651	CHOI ET AL.	
	Examiner	Art Unit	
	Randy Peaches	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8-20* is/are allowed.

6)☒ Claim(s) *1,2,4 and 6* is/are rejected.

7)☐ Claim(s) *3,5 and 7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. ***Claims 1, 2, 4 and 6*** are rejected under 35 U.S.C. 103(a) as being unpatentable over China Wireless Telecommunication Standard (CWTS), *"Physical Layer Procedures"*, hereinafter referenced as **CWTS1,** in view of Gustafsson et al. (U.S. Patent Number 6,643,275 B1).

Regarding ***claim 1***, CWTS1 discloses a method of being approved, data transmission from a UTRAN (UMTS Terrestrial Radio Access Network) at a UE (User Equipment) within a 5 coverage area of the UTRAN in a TDD (Time Division Duplexing) CDMA (Code Division Multiple Access) mobile telecommunication system where a frame (see FIGURE 1) has a plurality of sub-frames, each sub-frame has a plurality of time slots, and each time slot has a plurality of channels identified by codes, the method comprising the steps of (see CWTS1, p.9, section 6.4.1):

- receiving the sync code information, information about an arrival time of the sync code, time update information indicating a variation in a transmission time of data, and power control information indicating an adjustment to a power gain in

the. UE from the UTRAN on an FPACH (Fast Physical Access Channel). See CWTS1 p.9, section 6.4.1 and p.10, section 6.5.1; and

- transmitting the RACH data on a P-RACH (Physical Random Access Channel) mapped from the FPACH according to the time update information and the power control information, wherein the power control can only affect the RACH and the FACH. See CWTS1, section 6, section 5.3.1 and section 5.3.2;

However, CWTS1 fails to clearly indicate selecting one of a plurality of sync codes by which the UTRAN identifies UEs that request data transmission and transmitting information about the selected sync code in a time slot of a sub-frame to the UTRAN.

Gustafsson et al. discloses selecting one of signature patterns, which reads on claimed "plurality of sync codes", by which the UTRAN identifies the MS, which reads on claimed "UEs", that request data transmission and transmitting information about the selected said signature patterns in a time slot of a sub-frame to the UTRAN. Gustafsson et al. teaches of signature patterns that are selected by the said MS for uniqueness (identification); however, Gustafsson et al. vaguely discloses of where the said signature patterns are coming from. CWTS1 (section 6.5.1) clearly teaches of receiving training sequence (SYNC), which reads on claimed "signature patterns," where the said MS will randomly chose and send the SYNC and the access request on the RACH with the Txtime and Txpower estimation.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teaching of CWTS1 to include Gustafsson et al. in order to clearly disclose where a said MS will select a unique signature pattern

received from a network (BS) in order to be identified when requesting data transmission from a UTRAN (UMTS Terrestrial Radio Access Network).

Regarding ***claim 2***, as the combination of CWTS1 and Gustafsson et al. are made, the combination according to ***claim 1***, the combination continues to disclose wherein if the said signature pattern indicates the selected said signature pattern, the said UE receives the said signature pattern information and the said signature pattern arrival time information on the said FPACH, whereby the said UTRAN utilizes the FPACH to transmit the said unique signature pattern to the said MS (UE). CWTS1 clearly teaches of receiving training sequence (SYNC), which reads on claimed "signature patterns," whereby the said MS will randomly chose and send the SYNC and the access request on the RACH with the Txtime and Txpower estimation. See CWTS section 6.5.1.

Regarding ***claims 4 and 6***, CWTS1 discloses a method of being approved, data transmission from a UTRAN (UMTS Terrestrial Radio Access Network) at a UE (User Equipment) within a 5 coverage area of the UTRAN in a TDD (Time Division Duplexing) CDMA (Code Division Multiple Access) mobile telecommunication system where a frame (see FIGURE 1) has a plurality of sub-frames, each sub-frame has a plurality of time slots, and each time slot has a plurality of channels identified by codes, the method comprising the steps of (see CWTS1, p.9, section 6.4.1):

- receiving the sync code information, information about an arrival time of the sync code, time update information indicating a variation in a transmission time of

data, and power control information indicating an adjustment to a power gain in the. UE from the UTRAN on an FPACH (Fast Physical Access Channel). See CWTS1 p.9, section 6.4.1 and p.10, section 6.5.1; and

- detecting a reception time delay from an arrival time of each sub-frame including a sync code and a predetermined reception time slot in the sub-frame, measuring a reception power of each sync code, and transmitting information including the sync code, the arrival time of each sub-frame with a sync code, the time delay, and the power measurements on an FAPCH (Fast Physical Access Channel). See CWTS1 p.12, section 6.5.1; and
- receiving data from a said UE on a P-RACH (Physical Random Access Channel) mapped from the FPACH according to the time update information and the power control information, wherein the power control can only affect the RACH and the FACH. See CWTS1, section 6, section 5.3.1 and section 5.3.2;

However, CWTS1 fails to clearly indicate selecting one of a plurality of sync codes by which the UTRAN identifies UEs that request data transmission and transmitting information about the selected sync code in a time slot of a sub-frame to the UTRAN.

Gustafsson et al. discloses selecting one of signature patterns, which reads on claimed "plurality of sync codes", by which the UTRAN identifies the MS, which reads on claimed "UEs", that request data transmission and transmitting information about the selected said signature patterns in a time slot of a sub-frame to the UTRAN. Gustafsson et al. teaches of signature patterns that are selected by the said MS for uniqueness (identification); however, Gustafsson et al. vaguely discloses of where the

said signature patterns are coming from. CWTS1 (section 6.5.1) clearly teaches of receiving training sequence (SYNC), which reads on claimed "signature patterns," where the said MS will randomly chose and send the SYNC and the access request on the RACH with the Txtime and Txpower estimation.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the teaching of CWTS1 to include Gustafsson et al. in order to clearly disclose where a said MS will select a unique signature pattern received from a network (BS) in order to be identified when requesting data transmission from a UTRAN (UMTS Terrestrial Radio Access Network).

Allowable Subject Matter

2. ***Claims 3, 5 and 7*** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. ***Claims 8-20*** are allowed.

Regarding ***claims 8, 13 and 20*** the Applicant states in part:

- ***Clm 8*** - *receiving time update information and power control information on the FPACH indicated by the I_FPACH; and*
- **Clm 13** - *transmitting information indicating a sub-frame with an FPACH (Fast Physical Access Channel) that acknowledges the received sync code to the UE*

on an I_FPACH (Index Fast Physical Access Channel); transmitting time update information and power control information on the FPACH indicated by the I_FPACH; and

- **Clm 20** - *receiving information including the sync code from the UE, transmitting information indicating a sub-frame with an FPACH (Fast Physical Access ; Channel) that acknowledges the sync code to the UE on an I_FPACH (Index Fast Physical Access Channel), and transmitting an acknowledgment including time update information and power control information to the UE on the FPACH by the UTRAN; and receiving the I_FPACH frame and the FPACH frame from the UTRAN and transmitting RACH data on the P-RACH to the UTRAN according to the time update information and the power control information by the UE.*

The above reference claimed limitation at the present stage of prosecution, overcome the cited prior art of reference based on the premise of the inclusion of an ***I-FPACH.***

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy Peaches whose telephone number is (571) 272-7914. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Randy Peaches
RP

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER